What is claimed is:

1. A wireless communication method, comprising:

receiving a center modulated signal on a wireless channel n, a lower adjacent modulated signal on a lower adjacent licensed channel n-1, and a higher adjacent modulated signal on a higher adjacent licensed channel n+1;

simultaneously processing the center modulated signal into a baseband signal and characterizing the lower and higher adjacent modulated signals; and

sending a control signal to a transmitter of the center modulated signal based on a characterization of the lower and higher adjacent modulated signals.

2. The method of claim 1, wherein receiving a center modulated signal on a wireless channel n, a lower adjacent modulated signal on a lower adjacent licensed channel n-1, and a higher adjacent modulated signal on a higher adjacent licensed channel n+1 includes filtering a representative signal of a received signal through a three channel filter to provide representative signals of the center modulated signal and the lower and higher adjacent modulated signals.

3. The method of claim 1, simultaneously processing the center modulated signal into a baseband signal and characterizing the lower and higher adjacent modulated signals includes:

conditioning the center modulated signal and the lower and higher adjacent modulated signals into a filtered signal; and

processing the filtered signal into a processed signal using a three channel bandpass filter and frequency converter to provide the processed signal with a known first frequency to carry a representative signal for the lower adjacent modulated signal, a known second frequency to carry a representative signal for the center modulated signal, and a known third frequency to carry a representative signal for the higher adjacent modulated signal.

4. The method of claim 3, wherein simultaneously processing the center modulated signal into a baseband signal and characterizing the lower and higher adjacent modulated signals further includes:

independently filtering the processed signal using a switched filter to suppress the known lower and higher adjacent modulated signals;

converting the processed signal from an analog signal into a digital signal;

demodulating the digital signal to provide the baseband signal; and

characterizing the lower and higher adjacent modulated signals.

5. The method of claim 1, wherein sending a control signal to a transmitter of the desired signal based on a characterization of the lower and higher adjacent modulated signals includes sending a control signal to the transmitter to change a transmission frequency to another available channel.

6. The method of claim 1, wherein sending a control signal to a transmitter of the desired signal based on a characterization of the lower and higher adjacent modulated signals includes sending a control signal to the transmitter to modify a power level for a transmission of the desired signal.

7. A receiver, comprising:

means to receive a wireless signal having modulated frequencies corresponding to at least a wireless channel n and two adjacent licensed channels n-1 and n+1;

means to process the wireless signal to simultaneously provide a baseband signal corresponding to the wireless channel n and characterize signals corresponding to the two adjacent channels n-1 and n+1; and

means to send a control signal to a transmitter adapted to transmit a signal over wireless channel n based on a characterization of the signals corresponding to the two adjacent channels n-1 and n+1.

8. The receiver of claim 7, wherein the means to process the wireless signal to simultaneously provide a baseband signal corresponding to the wireless channel n and characterize signals corresponding to the two adjacent channels n-1 and n+1 includes:

means to filter a signal representative of the wireless signal into a signal having first, second and third frequencies corresponding to channels n-1, n and n+1; and

means to demodulate a signal corresponding to the second frequency and to characterize signals corresponding to the first and third frequencies.

9. The receiver of claim 8, further comprising means to independently adjust signal levels on the first and third frequencies.

10. The receiver of claim 7, wherein the means to process the wireless signal to simultaneously provide a baseband signal corresponding to the wireless channel n and characterize signals corresponding to the two adjacent channels n-1 and n+1 includes:

means to up-convert a first signal representative of the wireless signal into an up-converted second signal such that a frequency corresponding to channel N is increased to a known up-converted center frequency and frequencies corresponding to the adjacent channels N-1 and N+1 are increased to up-converted adjacent frequencies;

means to filter the up-converted second signal to pass the up-converted center frequency and the up-converted adjacent frequencies as a filtered up-converted third signal;

means to down-convert the third signal to a down-converted fourth signal that includes a known down-converted center frequency corresponding to the channel n and known down-converted adjacent frequencies corresponding to channels n-1 and n+1;

means to independently filter and balance the known down-converted adjacent frequencies to reduce dynamic range; and

means to demodulate the down-converted center frequency into the baseband frequency and characterize the balanced adjacent channel frequency components.

11. A receiver, comprising:

a signal processing module to filter and frequency convert a signal representative of a radio frequency (RF) signal to provide a processed signal having predetermined first, second and third frequencies, the predetermined second known frequency corresponding to a center channel n of the RF signal, and the predetermined first and third frequencies corresponding to adjacent licensed RF channels n-1 and n+1;

an adjacent carrier filter module to independently filter the predetermined first and third frequencies of the processed signal and to provide a balanced signal representative of channels n-1, n and n+1;

an analog-to-digital converting module to convert the balanced signal from an analog signal to a digital signal; and

a processor to receive the digital signal, provide a baseband signal for the RF channel n and characterize the adjacent RF channels n-1 and n+1.

12. The receiver of claim 11, wherein the processor is adapted to provide a transmitter control signal to be transmitted to a transmitter adapted to transmit signals on channel n.

13. The receiver of claim 12, wherein the transmitter control signal includes a signal for the transmitter to adjust a power level for a transmission on channel n.

14. The receiver of claim 12, wherein the transmitter control signal includes a signal for the transmitter to transmit on another channel.

15. The receiver of claim 11, wherein the signal processing module includes:

an up-converter to convert the processed signal into an up-converted signal with increased frequencies such that the center channel n and the adjacent channels n-1 and n+1 in the up-converted signal have known up-converted frequencies;

a bandpass filter to filter the up-converted signal and pass a filtered signal with known up-converted frequencies corresponding to the center channel n and the adjacent channels n-1 and n+1; and

a down-converter to convert the filtered signal into a down-converted signal with decreased frequencies such that the center channel n and the adjacent channels n-1 and n+1 in the down-converted signal have known down-converted frequencies.

16. The receiver of claim 11, further comprising a signal conditioning module including at least one bandpass filter module.

17. The receiver of claim 16, wherein the at least one bandpass filter module is adapted to pass frequencies within a UHF frequency range.

18. The receiver of claim 11, further comprising a signal conditioning module including a power calibration module to adjust an amplitude of the signal representative of a radio frequency (RF) signal based on a power level of the RF signal.

19. The receiver of claim 11, further comprising a signal conditioning module adapted to pass the conditioned signal with a frequencies between approximately 450 MHz and approximately 700 MHz, wherein the signal processing module includes:

an up-converter to synthesize the conditioned signal with a up-conversion mixing signal having a frequency within a range of approximately 200 MHz to 500 MHz, the frequency of the up-conversion mixing signal being selectable in 6 MHz

steps based on the frequency of channel n such that channel N in a resulting up-converted signal has a center frequency of approximately 915 MHz;

a surface acoustic wave (SAW) filter to filter the up-converted signal and pass frequencies within a range of approximately 906 MHz to 924 MHz as a filtered up-converted signal, wherein channel n is represented at a center frequency of approximately 915 MHz in the filtered up-converted signal, channel n-1 is represented at a center frequency of approximately 909 MHz in the filtered up-converted signal; and channel n+1 is represented at a center frequency of approximately 921 MHz in the filtered up-converted signal; and

a down-converter to mix the filtered up-converted signal with a down-conversion mixing signal have a frequency of approximately 900 MHz to provide a down-converted signal within a range of approximately 6 MHz to 24 MHz, wherein channel n is represented at a center frequency of approximately 15 MHz in the down-converted signal, channel n-1 is represented at a center frequency of approximately 9 MHz in the down-converted signal, and channel n+1 is represented at a center frequency of approximately 21 MHz in the down-converted signal.

20. The receiver of claim 19, wherein:

the down-converter includes an image reject mixer to provide an in-phase signal (I) and a quadrature-phase signal (Q); and

the adjacent carrier filter module to independently filter and suppress the 9MHz and 21 MHz channels for both the I and Q signal.

21. The receiver of claim 20, wherein the analog-to-digital (A-D) converting module includes a first 12-bit A-D converter to convert the I signal from an analog signal to a digital signal, and a second 12-bit A-D converter to convert the Q signal from an analog signal to a digital signal.

22. A wireless communication system, comprising:

a substantially omni-directional antenna; and

a receiver connected to the antenna to receive a desired signal over a radio frequency (RF) channel n and signals over adjacent licensed RF channels n-1 and n+1, to process the desired signal and signals over adjacent wireless channels to provide a demodulated signal corresponding to the RF channel n and a characterization of the signals over the RF adjacent channels n-1 and n+1 in real time, and to send a control signal to a transmitter of the desired signal, the control signal being based on the characterization of the signals over the RF adjacent channels n-1 and n+1.

23. The system of claim 22, wherein the RF channels n-1, n, and n+1 are within a UHF frequency range.

24. The system of claim 22, wherein the control signal includes a signal for the transmitter to adjust a power level for transmission of the desired signal over the RF channel n.

25. The system of claim 22, wherein the control signal includes a signal for the transmitter to change a frequency for transmission of the desired signal.

26. The system of claim 22, wherein the receiver includes:

a signal processing module to filter and frequency convert a signal representative of an RF signal to provide a processed signal having known first, second and third frequencies, the second known frequency of the processed signal corresponding to the RF channel n, and the first and third known frequencies of the processed signal corresponding to the RF adjacent channels n-1 and n+1; and

an adjacent carrier filter module to independently filter the first and third known frequencies of the processed signal and to provide a suppressed signal representative of the RF channels n-1, n and n+1.